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ANNUAL REPORT

OF THE

Medical Officer of Health

AND

Senior Public Health Inspector

1959

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The Carlton Press, Norton-on-Tees.

Health Department,
Council Offices,
Haverton Hill,
Billingham.
July, 1960.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1959.

Mr. Chairman, Ladies and Gentlemen,

It gives me great pleasure to present my 18th Annual Report which is for the year 1959.

In many ways 1959 has been an exceptionally good year. On the credit side are the weather, the large number of immunisations against poliomyelitis, the excellent housing situation, rising population, high birth rate and much good work, both paid and unpaid, done by the doctors and nurses, teachers, the Community Centre and the W.V.S., all contributing to the better health of the community.

On the debit side are still the undue loss of young lives and unnecessarily abbreviated older lives.

" Do it yourself " should now extend into the field of public health. There is no need, for example, to wait for the Clean Air Act to be implemented by the local authority. It is possible for everyone to burn smokeless fuel and so help to maintain his own good health and the health of others, especially those with heart trouble and bronchitis. The same principle applies to the smoking of cigarettes as to smoky fires. Both are prejudicial to health and both are quite unnecessary. Nobody has ever suffered the slightest ill-health through not smoking.

The principle of self-help applies also to obesity. To avoid the mistake of being fat is to help in avoiding heart troubles, diabetes and many other ills. It has been estimated that the lives of the fat ones are 10 years shorter than those of the lean ones. How can the health department help people to be Jack Spratts and to exercise a little self discipline over smoking fires and smoking cigarettes. Everybody would be better for it. It is no longer fashionable to be master of one's fate and Captain of one's Soul. Why not ? Why lean on the Welfare State for physical and moral support ? Why not contribute towards the welfare of others and at the same time one's self with a good heart and willingly? Early death through obesity or lung cancer or thrombosis or chronic bronchitis or diabetes which might have been prevented is surely a cruel blow to one's nearest and dearest.

The big need now is not so much for education to convince the public (for surely no one can put his nicotine stained fingers over his fatty heart and say he doesn't know that he would feel better without all that fat or all that " poison " within his system), as for some means of changing what is considered fashionable. Knowing what is right should be followed by doing what is right. Why not ? People do what they want to do. The thing is to want what is best. Group discussions are helpful in spreading conviction.

A steadily rising tax on sugar and on tobacco would be of untold benefit to us all and perhaps a tax on the burning of raw coal, too, would help to change the fashion. A sense of responsibility over the non-handling of food and over the need for keeping food clean is also necessary, not to mention the lesser question of clean streets and clean countryside. If we all took our litter back home with us our environment would refresh the soul and would be safer for all. It would also lessen the work of the Safety Committee. And Vandalism—do we want our possessions knocked about and destroyed ?

The future for the modern health department is not so much to do things for the public as to prod it into making a move towards a do-it-yourself mood and towards more self help. At first little or nothing was done but now people expect too much to be done for them and it is time the pendulum began to swing in another direction.

Infant mortality and still births remain an important problem despite the great achievements of recent years. In 1959 15% of all deaths in Billingham were due to still births and infant deaths; infant deaths were 10% of the total, which is far too high.

Infectious diseases were increased due to a widespread epidemic of measles, and Billingham had a share in an outbreak of food poisoning on Tees-Side in the early weeks of the year.

Clinic attendances were again lower and the number of those attending has decreased still further.

The Home Safety Committee, formed in 1955, continued its work and regular meetings. As in 1958, a Home Safety Poster Competition was held in the schools. This time the topic was ' Falls.' Excellent entries were received and again Mr. S. Bell, of Tintern Avenue was the honorary judge.

The Chiropody Service and Meals on Wheels run by the W.V.S. continues as before.

' Diphtheria immunisation '—This is the last full year of the scheme as operated by the Urban District Council. Begun in October, 1942, the Durham County Council although responsible for the cost from 1948, generously permitted the scheme to continue unchanged for a further twelve years, making a total of eighteen years in all. During the last 12 years 31 cases were notified and there were no deaths compared with 232 cases, 7 deaths in the preceding 6 years whilst a final percentage of school children immunised was maintained at 95% for each year.

This was achieved by the use of immunisation nurses who attended, in their homes, children unable to attend surgery or clinic, and by regular school sessions undertaken by family dcotors. An efficient office staff, canvasser, register and filing system were also necessary. Willing help was given by parents and teachers.

I should like to thank the County Council also for their other services within the district and for supplying the necessary data, also other departments of the District Council for their help and various other persons and voluntary bodies, including the W.V.S., who continue to contribute so well to the health and happiness of the people of Billingham.

I have the honour to be,
Ladies and Gentlemen,
Your obedient servant,
L. R. BENHAM.

Staff :—

Medical Officer of Health :
Lalage R. Benham, M.B., B.S., D.P.H.

Senior Public Health Inspector :
A. H. Rushworth, C.R.S.H., F.A.P.H.I.

Deputy Public Health Inspector :
R. Love, M.R.S.H., M.A.P.H.I.

Pupil Public Health Inspector:
R. E. Lund.

Clerks :
R. Ingram, D. M. Baker, A. L. Blane until 4th September, 1959, and M. Blenkin after 6th September, 1959.

Population

The resident population of the Urban District at mid-year was estimated by the Registrar General at 28,770, and my figures have been calculated on this basis.

Births

The number of live births during the year was 709, made up of 359 males and 350 females, a decrease of 47 on 1958. The decrease was made up of 19 males and 28 females.

The crude birth rate is 24.6 per 1,000 population and the adjusted rate is 21.9, the comparability factor being 0.89.

Illegitimate births numbered 23 (10 males and 13 females).

Still Births

There were 13 still births (8 male and 5 female) with a still birth rate of 18 per 1,000 total births.

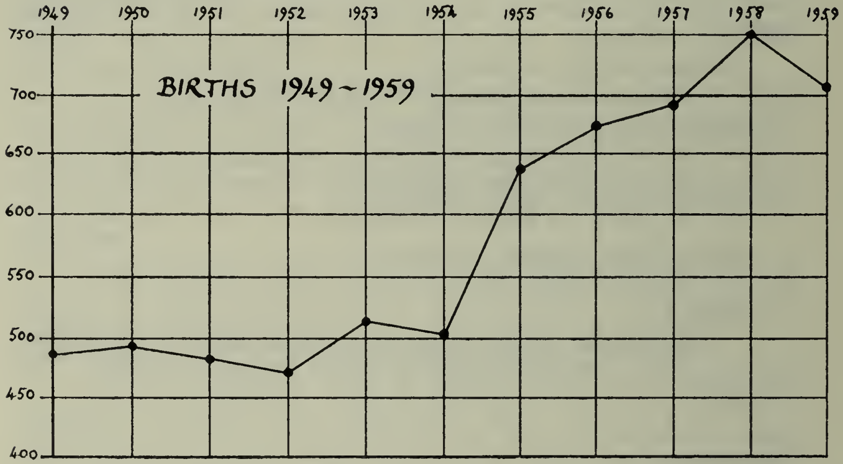
Last year's figures were 15 (7 male and 8 female) with a rate of 19.5.

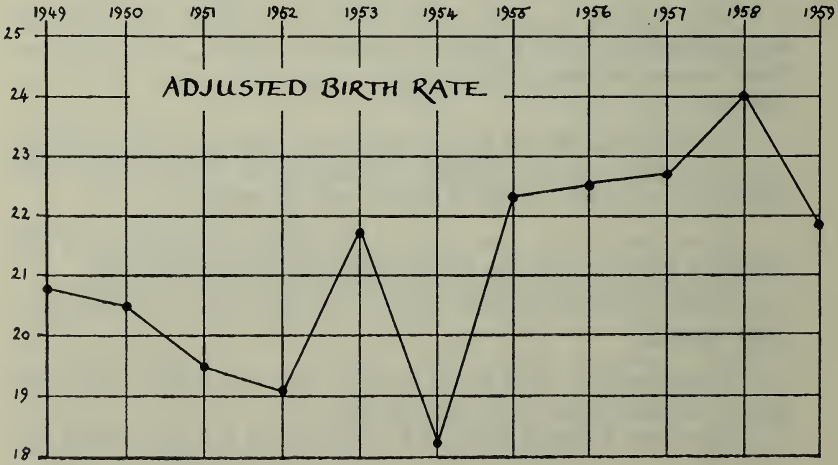
Deaths

The number of deaths registered was 214, which is 12 fewer than in 1958. There were 132 males and 82 females, giving a crude rate of 7.4 per 1,000 of the population. The adjusted rate was 12.7; the comparability factor being 1.72.

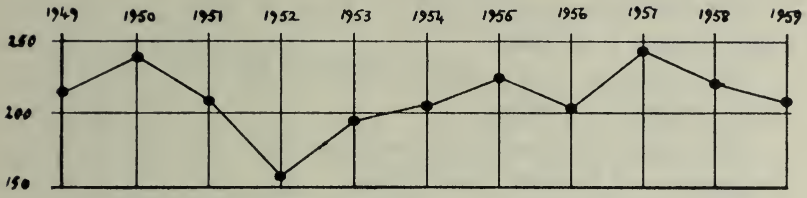
The largest incidence was from :—

	Male	Female	Total
Coronary disease—Angina	29	9	38
Neoplasm—various sites	29	21	50
Heart disease	11	11	22
Vascular lesions of nervous system ...	12	9	21
Pneumonia	8	3	11
Bronchitis	8	2	10

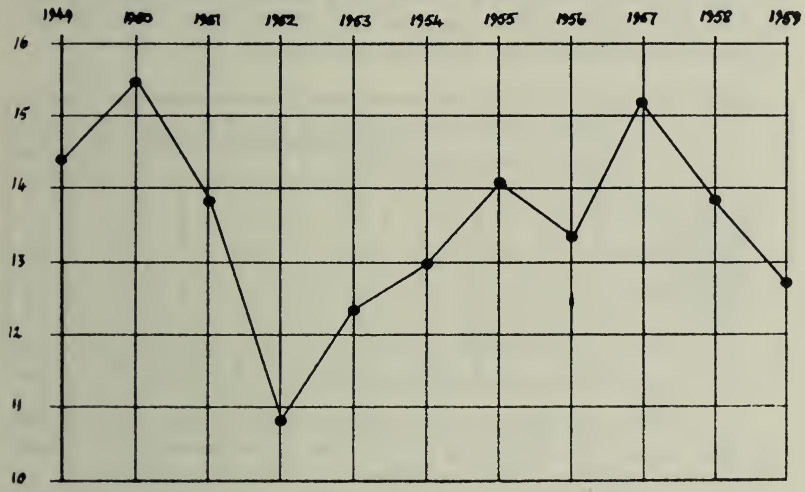




DEATHS 1949 ~ 1959



ADJUSTED DEATH · RATES



Infant Deaths Under One Year

There were 20 deaths in children under one year of age (10 male and 10 female) and the infant mortality rate is 28.2 per 1,000 live births.

Infant Deaths Under One Day

Seven children died within 24 hours of birth.

Infant Deaths 1—6 Days

Five children died under one week of age.

Infant Deaths 1—3 Weeks

One child died under four weeks of age.

Comparison of Infantile Death Rate

Billingham 28.2 England and Wales 22.0

The infantile death rate is 4.4 higher than last year and is also 6.2 higher than the rate for England and Wales.

Infant deaths under one day (7), one week (5), one month (1), and under twelve months (7), making a total of 20 deaths. Fourteen of the infants died in hospital and six at home. The primary causes of death could be classified as follows :—

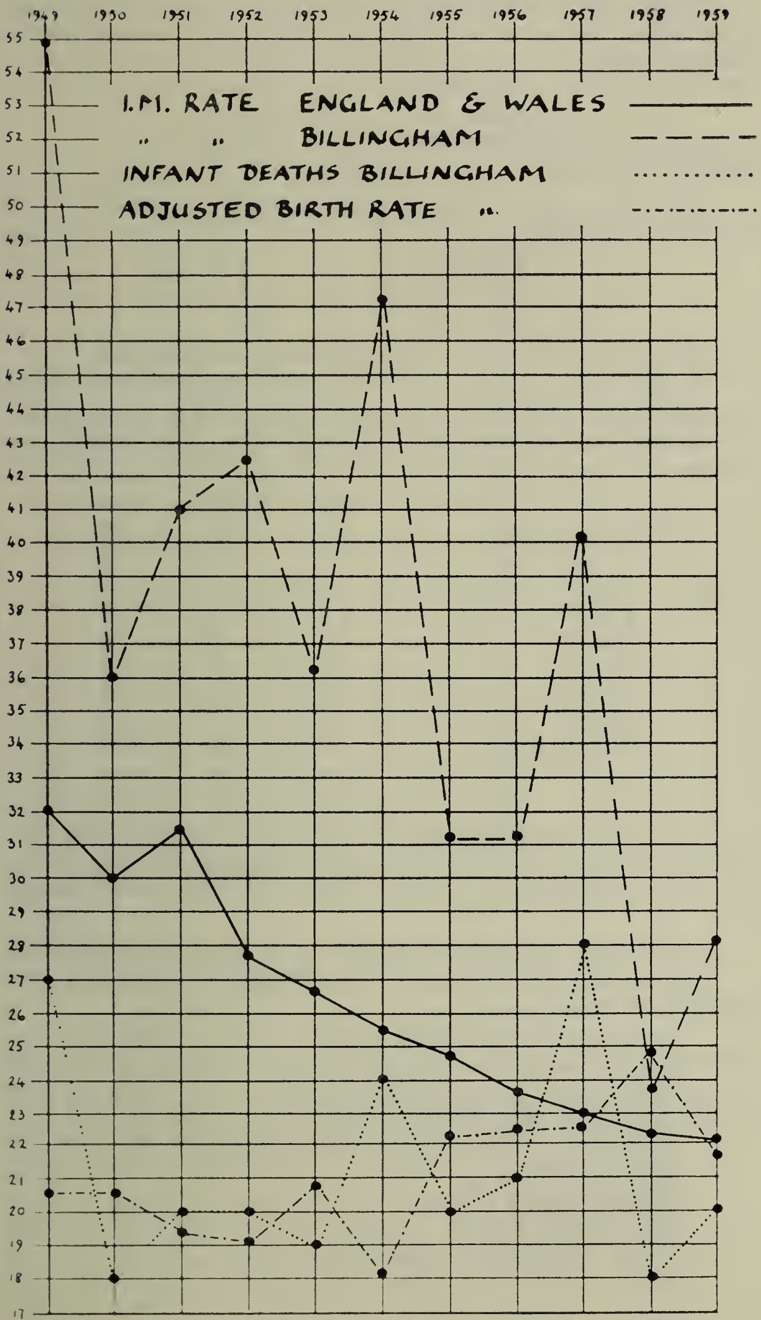
	Under 1 Day	Under 1 Week	Under 1 Month	Total under 4 wks.	1–3 Month	4–6 Month	7–12 Month	Total under 1 Yr.	Died in Hosp.	Died at Home
Prematurity ..	4	2	–	6	–	–	–	6	6	–
Birth Injuries ..	3	1	–	4	–	–	–	4	3	1
Congenital Abnormalities ..	–	2	–	2	1	1	1	5	4	1
Pneumonia ..	–	–	–	–	1	1	–	2	–	2
Gastro Enteritis ..	–	–	1	1	–	–	–	1	1	–
Accidents ..	–	–	–	–	2	–	–	2	–	2
Totals	7	5	1	13	4	2	1	20	14	6

The following table gives the infant deaths in the various areas for the years 1959, 1958 and 1957. The infant mortality rates are also given, together with the births for the same periods :—

Area 1. Haverton Hill with Port Clarence and Cowpen Bewley.
Area 2. Pre-war Billingham (south of the railway).
Area 3. The new town (north of the railway).

	Deaths			Births			I.M. Rate		
	1959	1958	1957	1959	1958	1957	1959	1958	1957
1. Haverton I.	8	2	9	209	189	182	38·3	10·6	49
2. Billingham S. ..	3	5	8	97	131	116	31	38	69
3. Billingham N. ..	9	11	11	403	436	399	22·3	25·2	27·6

INFANT MORTALITY 1949 - 1959



Still Births

There were 13 still births in the area, 8 male and 5 female, 12 of which occurred in hospital. They were located in the following areas :—

Area No. 1	...	2
Area No. 2	...	2
Area No. 3	...	9

Perinatal Mortality

Still births, plus deaths of infants under one month of age were 26, as follows :—

Area No. 1	...	6
Area No. 2	...	3
Area No. 3	...	17

There were 709 babies born, 47 fewer than last year.

The birth rate of 24.6 per 1,000 of the population is 2.3 lower than last year. The death rate of 7.4 per 1,000 is .6 lower than in 1958, and the majority of the deaths were again people over the age of 55, as shown below :—

		Male	Female	Total
Under 1 year	...	10	10	20
1— 4 years	...	2	—	2
5—14 ,,	...	1	1	2
15—24 ,,	...	4	1	5
25—34 ,,	...	2	1	3
35—44 ,,	...	7	7	14
45—54 ,,	...	13	3	16
55—64 ,,	...	26	12	38
65 and over	...	67	47	114
		132	82	214

During the year there were 709 births and 13 still births. The ante-natal clinics were attended by 154 mothers or only 21.7%, the lowest attendanc ever recorded, while 241 babies were brought to the infant welfare clinics.

In addition, 424 children aged 1 to 5 years attended clinics.

The number of persons on the register at all clinics was compiled as follows :—

Billingham Ante-Natal Clinic	134	(—)
Haverton Hill Ante-Natal Clinic ...	20	(−21)
Billingham Infant Welfare Clinic ...	174	(−40)
Haverton Hill Welfare Clinic	67	(−12)
Billingham Child Welfare Clinic 1-5 yrs.	321	(−12)
Haverton Hill ,, ,, ,, ,,	103	(+22)
Birth Control Clinics	21	(—)
Post Natal Clinics	27	(−24)
Ultra Violet Ray Clinic	78	(−38)
	945	(−125)

There was a fall of 125 in the number on the register.

——Attendances at the clinics were :—

	Billingham				Haverton Hill			
	1959	1958	Increase/Decrease		1959	1958	Increase/Decrease	
Mothers	485	701	—	216	69	185	—	116
Infants	1856	1829	27+	—	616	608	8+	-
1–2 years	162	229	—	67	48	52	—	4
2–5 years	206	247	—	41	48	73	—	25
Totals	2709	3006		297	781	918		137

The following table compares the number of live births with the number of mothers and children attending the ante-natal and child welfare clinics, also the rate per 100 births of those attending the clinics for the past ten years (percentage attendance) :—

Year	Births	Attending Ante-natal Clinic	Rate per 100	Attending Infant Clinic	Rate per 100	Attending Clinics 1–5 years
1950	496	298	60	251	51	541
1951	482	332	69	287	59	537
1952	471	317	67	273	59	592
1953	522	344	66	274	52	585
1954	507	290	57	237	47	534
1955	637	334	52	288	47	515
1956	670	282	42	302	45	468
1957	697	248	36	259	37	432
1958	756	175	23	293	39	414
1959	709	154	22	241	34	424

Welfare Foods

These were distributed from the following centres :—

Child Welfare Clinic, Cowpen Lane, Billingham.
Child Welfare Clinic, Tame Street, Haverton Hill.
W.V.S. Centre, South View, Billingham.
St. Aidan's Church Hall, Tintern Avenue, Billingham.

Figures for the distribution of National Welfare Foods are given as follows, together with the distribution during 1958 :—

	1959	**1958**
National Dried Milk—tins	3592	5614
Cod Liver Oil—bottles ...	1927	1861
Orange Juice—bottles ...	16077	15959
Vitamin Tablets—packets	1452	1439
	23048	24873

Notifiable Diseases

There were 563 notifications of infectious diseases received during the year, an increase of 264 on 1958 figures. Tuberculosis notifications numbered 10 of which 9 were pulmonary cases.

Separate figures are given in the following table, which also shows the number notified and the final figures after correction. Tuberculosis cases are dealt with separately.

A table showing the notifications from 1950 to 1959 is also given for comparison :—

	Under One Year	Years							25–Over	Total	Corrected
		1	2	3	4	5–9	10–14	15–25			
Scarlet Fever ..	–	–	4	2	4	12	1	2	1	26	26
Measles	13	64	72	77	82	146	3	2	2	461	461
Whooping Cough ..	1	5	3	6	4	12	16			47	47
Food Poisoning ..		1				1	1	1	2	6	6
Dysentery		2		1		1			3	7	6
Erysipelas									1	1	1
Poliomyelit s (P) ..	1	1			2					4	2
Poliomyelitis (N.P.)					1					1	2
Totals	15	73	79	86	93	172	21	5	9	553	551

1950 to 1959

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Diphtheria	4	5	5	–	–	1	–	–	–	–
Scarlet Fever ..	46	57	60	56	51	24	24	61	57	26
Whooping Cough ..	119	85	102	55	48	136	145	10	31	47
Pneumonia	27	30	40	29	15	16	9	3	1	—
Measles	217	463	362	105	257	443	488	206	188	461
Poliomyelitis (P) ..	4	3	2	1	1	–	2	6	–	4
Poliomyelitis (N.P.)	–	1	1	–	–	–	4	1	4	1
Dysentery	4	2	–	2	6	9	3	–	4	7
Erysipelas	2	3	3	8	3	4	3	2	2	1
Puerperal Pyrexia ..	–	1	–	–	1	–	–	1	1	–
Cerebro-spinal Fever	–	1	–	–	–	–	–	–	–	–
Chicken Pox ..	–	–	32	–	–	–	–	–	–	–
Ophthalmia Neonatorum ..	–	–	–	1	1	–	–	–	–	–
Food Poisoning ..	–	–	–	2	–	–	–	6	–	6
Meningococcal .. Infection	–	–	–	3	1	1	–	–	1	–
Totals	423	651	607	262	384	634	678	296	289	553

There were only 26 notifications of scarlet fever during the year, a decrease of 31 on last year. Seven cases were admitted to hospital and the other 19 were treated at home.

Four notifications of poliomyelitis (P) and one non-paralytic case were received, all were admitted to hospital.

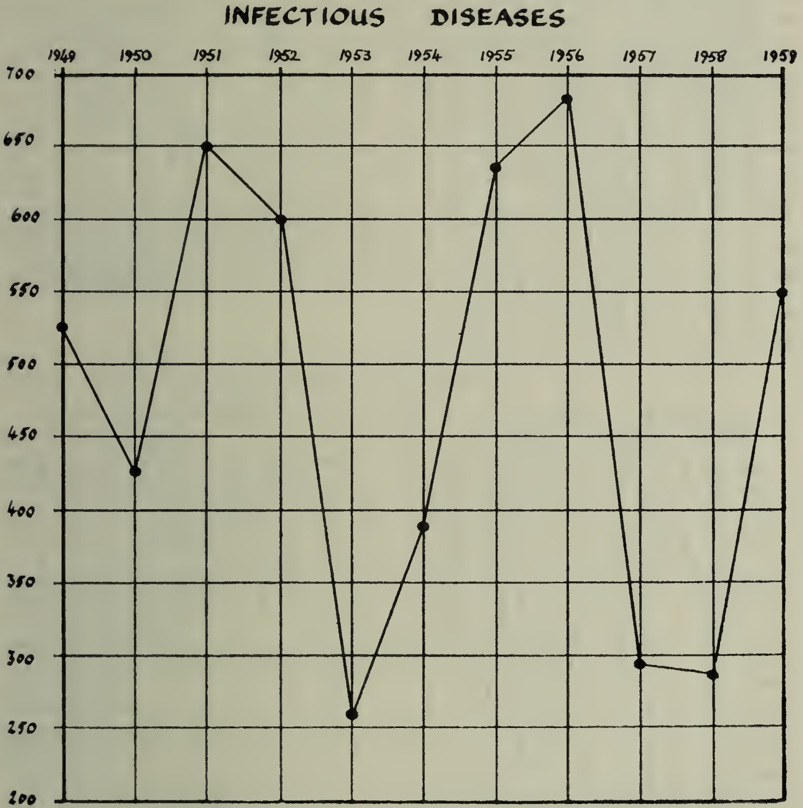
Two of the former were not confirmed, one (girl 18 months) was diagnosed as non-paralytic and one (boy 18 months) was in hospital for observation.

One of the dysentery notifications was not confirmed.

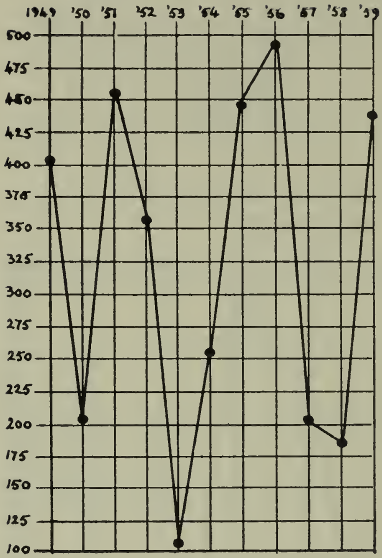
The following notified cases were admitted to hospital :—

Scarlet Fever ...	7	Polio (N.P.) ...	1
Food Poisoning .	5	Measles	2
Polio (Paralytic)	4	Dysentery ...	1

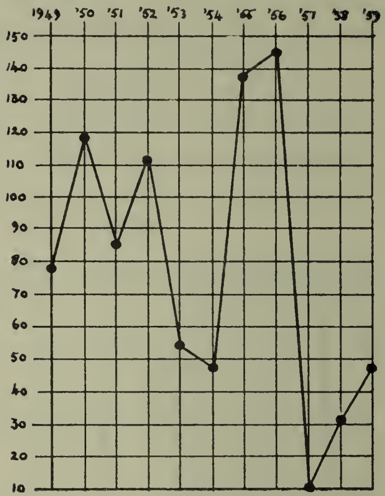
Notification Rate per 1,000



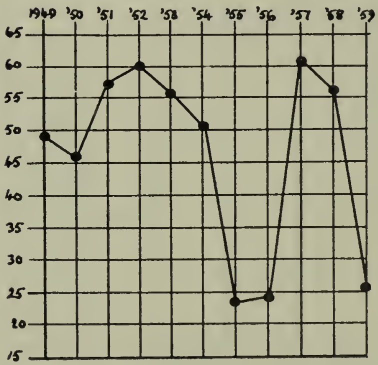
Disease	1959	1958
Scarlet Fever	.9	2.03
Whooping Cough ..	1.63	1.1
Measles	16.02	6.6
Food Poisoning ..	.2	—



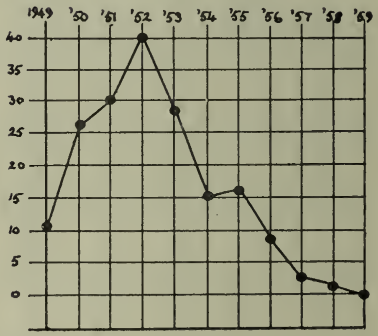
MEASLES



WHOOPING COUGH



SCARLET FEVER



PNEUMONIA

Vital Statistics

The following are extracts from the vital statistics supplied by the Registrar General :—

Births

	Males	Females	Total
Legitimate ...	349	337	686=Leg, rate of 23.8 per 1,000 pop.
Illegitimate ...	10	13	23=Illeg. rate of .8 per 1,000 pop.
	359	350	709=Birth Rate of 24.6 per 1,000 pop.

Still Births				
Legitimate ...	8	5	13	
Illegitimate ...	–	–	–	
	8	5	13	=Rate of 18 per 1,000 total births
Deaths	132	82	214	=Rate of 7.4 per 1,000 population
Infantile Deaths				
Legitimate ...	10	9	19	=Rate of 26.8 per 1,000 Births
Illegitimate ...	–	1	1	=Rate of 1.4 per 1,000 Births
	10	10	20	=Rate of 28.2 per 1,000 Births
Deaths of Infants Under Four Weeks				
Legitimate ...	6	6	12	
Illegitimate ...	–	1	1	
	6	7	13	

Women Dying in Consequence of Childbirth

Pregnancy, Childbirth and abortion ... nil.

Causes of Death...	**Male**	**Female**	**Total**
Coronary Disease—Angina	29	9	38
Neoplasm—Lung, Bronchus	8	–	8
,, —Stomach	6	8	14
,, —Breast	–	3	3
,, —Uterus	–	1	1
Other Malignant and Lymphatic Diseases	15	9	24
Heart Disease	11	11	22
Vascular Lesions of Nervous System ...	12	9	21
Pneumonia	8	3	11
Bronchitis	8	2	10
Other Diseases of Respiratory System ...	–	1	1
Influenza	–	2	2
Tuberculosis (Respiratory)	–	1	1
Leukaemia and Aleukaemia	1	1	2
Other Circulatory Diseases	2	–	2
Ulcer of Stomach and Duodenum ...	1	1	2
Gastro Enteritis and Diarrhoea	1	1	2
Nephritis and Nephrosis	1	2	3
Hyperplasia of Prostate	2	–	2
Congenital Malformations	1	2	3
Other Defined and Ill-defined Diseases	13	11	24
Motor Vehicle Accidents	8	–	8
All other Accidents	4	5	9
Suicide	1	–	1
Totals	132	82	214

Tuberculosis

The following table shows the notifications of pulmonary and non-pulmonary tuberculosis in the different age groups. Deaths are also shown :—

Age Group	NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0- 1	1	—	—	—	—	—	—	—
1- 4	—	—	—	—	—	—	—	—
5-14	—	—	1	—	—	—	—	—
15-24	—	1	—	—	—	—	—	—
25-34	1	1	—	—	—	—	—	—
35-44	1	—	—	—	—	1	—	—
45-54	—	1	—	—	—	—	—	—
55-64	2	—	—	—	—	—	—	—
65-up	—	1	—	—	—	—	—	—
Totals:	5	4	1	—	—	1	—	—

This gives a total of 9 notifications of pulmonary and one non-pulmonary tuberculosis, which is identical with the figures for 1958.

There were one death—pulmonary—against 4 last year, and no non-pulmonary, the same as in 1958.

In addition to the death referred to above a registered female aged 24 years died in hospital, but the cause of death was not tuberculosis. This is included in the statement below :—

At the beginning of the year there were 137 pulmonary cases (76 male and 61 female) on the register. The number at the end of the year was 144, as shown below.

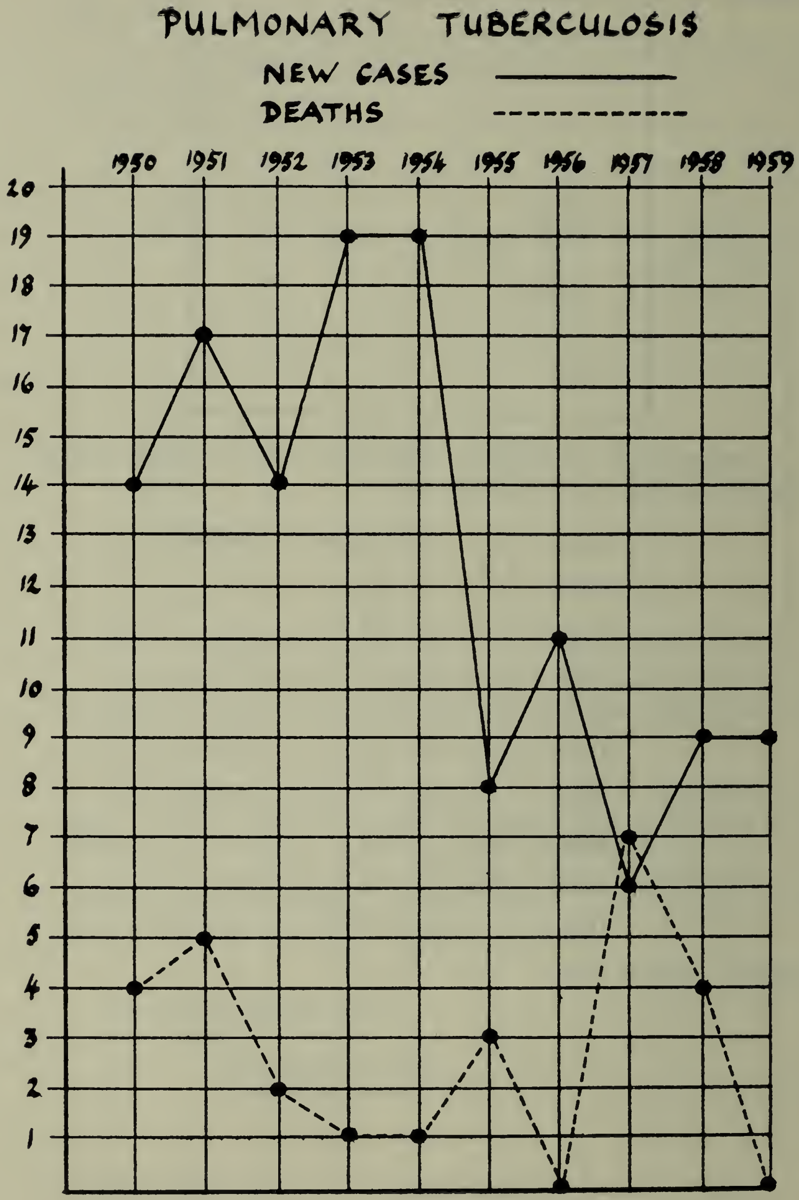
	M.	F.	Males	Females
As at 1st January, 1959			76	61
ADD				
New notifications			5	4
Transfers into area			2	6
			83	71
LESS				
Died	–	2		
Recovered ...	–	2	6	4
Transferred out	6	–		
			77	67

Pulmonary Tuberculosis—New Cases

Age Period	1959	1958
1- 4	1	—
5-14	—	—
15-24	1	2
25-34	2	2
35-44	1	1
45-54	1	2
55-64	2	1
65-up	1	1
Totals:	9	9

Deaths from pulmonary tuberculosis and new cases notified for the last ten years are listed below :—

Year		New Cases	Deaths
1950	...	14	4
1951	...	17	5
1952	...	14	2
1953	...	19	1
1954	...	19	1
1955	...	8	3
1956	...	11	1
1957	...	6	7
1958	...	9	4
1959	...	9	1



New Cases		Deaths	
1950-4	**1955-9**	**1950-4**	**1955-9**
83	43	13	16

Divided into five year periods one sees there has at last been a dramatic fall in the number of new cases, but the deaths, much smaller and fluctuating in number, have not shown any definite trend up or down.

B.C.G. Vaccination

B.C.G. vaccinations are performed as a routine in families where babies or Mantoux negative children are likely to be exposed to infection. B.C.G. vaccinations for school leavers are not as yet being done.

Mass Radiography Unit

During 1959 the Unit made visits to Billingham, Haverton Hill and Wolviston areas and held public sessions.

The total number of people X-rayed in 1959 was only about half the 1958 figure, but in 1958 the Unit X-rayed 1,765 people at the Furness Shipyard.

1,457 persons attended the Unit at the public sessions this year against a total of 1,119 in 1958.

Three cases of pulmonary tuberculosis which required close supervision were discovered, two females and one male, two of these being notified. All the cases were Billingham residents, two being man and wife.

A number of other diseases were discovered which are listed in the following statistical report :—

Mass Radiography Survey—Billingham Urban District

	Miniature Films			Referred to Chest Clinic		
	M	F	Total	M	F	Total
Billingham	280	857	1137	6	17	23
Haverton Hill ..	133	75	208	–	1	1
Wolviston ..	38	74	112	1	–	1
Totals	451	1006	1457	7	18	25

Abnormalities Discovered—

Haverton Hill—Nil.

Wolviston —	Pulmonary tuberculosis requiring close supervision	1	(notified)
Billingham—	Pulmonary tuberculosis requiring close supervision	2	(1 notified)
	Pulmonary tuberculosis healed and inactive	5	
	Simple Inflammatory lesion ...	3	
	Bronchiectasis	2	
	Bronchial Carcinoma	1	
	Sarcoidosis	1	
	Mitral Stenosis	3	
	Abnormal Aorta	1	
		19	

It is interesting to see that in Haverton Hill men outnumbered women, whilst the reverse is the case in Billingham and Wolviston.

Food Poisoning

During the year six notifications of food poisoning were received, three in the first quarter of the year and three in the second.

In the latter, mother, daughter and son belonging to one family were all admitted to hospital. A son, home on leave from the Forces, was also ill. The only suspected food, a tin of salmon, showed infection with coliform bacilli and streptococcus faecalis, almost certainly contaminated after opening. No food poisoning organisms were isolated.

The three notifications received during the first quarter of the year, and 8 cases otherwise ascertained were in common with an outbreak on Tees-side due to contamination of artificial cream at a Stockton bakers. The contamination was from egg products.

The estimated number of cases involved was at least 2,000 for the Tees-side area. In Billingham there were very few notifications, and most of the cases were brought to my notice late, on receiving the weekly list of Hospital Admissions.

Dr. Peters, Medical Offiecr of Health, Stockton, was most helpful and supplied information from time to time, the outbreak having originated in his area.

The outbreak began apparently, shortly before the Christmas holiday, but the situation was complicated by the fact that Sonne dysentery had been prevalent since early 1958, and many people, including the doctors, did not realise there had been a change in the causes of the cases of diarrhoea, in this case by way of vanilla slices and trifle from a single bakery, but widely distributed. There were also secondary cases from food handlers, from retail shops and domestic spread.

Fifty victims of food poisoning, mostly children, were still detained in hospital on March 3rd, seven weeks after the outbreak started.

Each patient was infected with several or all of the following strains : Salm. Enteritides, Salm. Muenchen, Salm. Oranienburg, Salm. Typhi-murium, Salm. Montevideo, Salm. Schwartzengrund, Salm. Bluckley, Salm. Anatum, Salm. Infantis and Salm. Give.

Vaccination.

The following vaccinations against smallpox were given during the year. Last year's figures are given for comparison.

		1959	**1958**
Vaccination	...	302	220
Re-vaccination	...	26	35

Diphtheria Immunisation

Immunisation against diphtheria was continued with energy, except for the period mid-July to mid-September, when only a limited number of injections were given.

The total number of injections given was 2,975, made up as follows :

Antigen	1st	2nd	3rd	Boosters 3rd	 4th	 5th	Total
Diphtheria, Whooping Cough and Tetanus	425	426	427	112	19		1409
Diphtheria and Whooping Cough	288	286	280	163	11	–	1028
Diphtheria only	27	29	–	160	307	15	538
Totals	740	741	707	435	337	15	2975

The number of children immunised in the age groups 0 to 4 and 5 to 15 at the end of the year was—

0 to 4 years—of 3,455, 2,518 were immunised=72.9%
5 to 15 years—of 5,429, 5,064 were immunised=93.3%

There were 8,884 children up to 15 years of age in the area at the end of the year and, of these 7,582 had received injections. This gives a total percentage of 85.3 as compared with 85.5 last year.

The number of refusals was 422 which equals 4.8% of the total children in the area.

At 31st December a third or boosting dose has been given to 5,837 children, out of a total of 7,582 who were due for the injection or 78.7% which is 2.1% lower than last year.

In addition 3,958 out of 5,268 who were, or shortly would have been due for a fourth injection had been immunised, equalling 75.1% or .6% lower than in 1958.

The following table shows where the injections were carried out :—

	1st	2nd	3rd	Boosters 3rd	Boosters 4th	Boosters 5th	Total
Surgeries ..	442	443	444	130	29	5	1,493
Homes ..	230	239	218	193	27	2	909
Schools ..	14	4	—	97	271	8	394
Clinic ..	54	55	45	15	10	—	179
Totals ..	740	741	707	435	337	15	2,975

Poliomyelitis Vaccination

During the year the following injections against poliomyelitis were given at sessions held at Billingham :—

Group	First M	First F	Second M	Second F	Third M	Third F	Total
Children	1397	1428	1395	1450	1504	1521	8695
15/26 Group ..	256	565	278	566	39	55	1759
Expectant Mothers	–	112	–	104	–	20	236
Drs. and Families	–	–	–	–	4	4	8
Nurses, etc. ..	–	13	–	15	–	12	40
Totals	1653	2118	1673	2135	1547	1612	10738

At December 31st the following had received two injections:—

Children 1944 / 1959	6063
Age Group 15/26 ...	1163 (includes children born in 1943)
Expectant Mothers ...	137
Nurses, Midwives, etc.	21

The following table gives the children vaccinated at sessions in 1959 and in earlier years, by age and sex.

Year	Boys		Girls		Total		Total
	1959	earlier	1959	earlier	Boys	Girls	
1959	24	—	19	—	24	19	43
1958	154	7	185	7	161	192	353
1957	145	84	153	62	229	215	444
1956	139	106	125	96	245	221	466
1955	127	105	116	83	232	199	431
1954	56	115	86	99	171	185	356
1953	81	142	86	158	223	244	467
1952	79	125	70	123	204	193	397
1951	78	127	73	129	205	202	407
1950	73	128	82	127	201	209	410
1949	87	138	71	143	225	214	439
1948	71	112	80	136	183	216	399
1947	74	130	75	136	204	211	415
1946	93	108	103	102	201	205	406
1945	59	79	69	112	138	181	319
1944	61	98	51	101	159	152	311
Totals	1401	1604	1444	1614	3005	3058	6063

In addition to the figure of 6,063 above information was received of 417 children (206 boys and 211 girls) vaccinated at doctors' surgeries. This gives a total of 6480 protected by the end of the year or 73%.

A further 144 in the 15/26 age group also had injections at surgeries.

3159 third injections were given at the clinics during the year and 37 at surgeries, giving a total of 3,196.

Vaccination against poliomyyelitis was also carried out at the various works, etc., in the area, and the following received two injections, all in the 15/26 age group.

I.C.I. Ltd.	1620
British Titan Products Ltd.	82
Furness Shipbuilding Co. Ltd.	60
Davy and United Roll Foundry, Ltd. ...	44
Wynyard Training College	56
Students and Shop Assistants	70

At the end of the year arrangements for vaccination became the responsibility of Dr. W. Rodgers, Assistant County Medical Officer, No. 11 Area, Sedgefield.

The Nursery, Tame Street, Haverton Hill

A table showing the attendances is given below : —

Month	Days Open	Total Attendances	Daily Average	Daily Maximum
January . .	20	219	10.9	12
February . .	20	213	10.6	12
March . .	21	207	9.8	16
April . .	22	362	16.4	20
May . .	20	335	16.7	19
June . .	22	435	19.7	23
July . .	23	449	19.5	24
August . .	16	316	19.7	22
September . .	22	453	20.5	22
October . .	22	474	21.5	22
November . .	21	484	23	25
December . .	20	395	19.7	19

County Hostels for the Elderly

The number of persons maintained by the County Council in hostels as at 31st December, 1959, was 24 (12 males and 12 females).

The number of children belonging to Billingham in the care of the County Council at the same date was 44.

Morbidity

A useful guide to the extent of illness is provided by the weekly return of new claims for sickness benefit under the National Health Insurance Scheme

Monthly statistics for the year are given below. These give a weekly average of 122.06 against 127.7 for 1958, and a monthly figure of 528.9 against 554 for last year.

The worst months for new sickness benefit claims were January and March, and the best months May and August.

			1959	**1958**
January	...	...	706	901
February	...	...	628	813
March	...	...	811	624
April	...	...	499	559
May	...	...	342	360
June	...	...	460	385
July	...	...	363	422
August	...	...	341	335
September	...	...	575	544
October	...	...	503	539
November	...	...	543	524
December	...	...	576	643
			6347	6649

June, 1960.

SENIOR PUBLIC HEALTH INSPECTOR'S REPORT FOR 1959

Mr. Chairman, Ladies and Gentlemen,

I beg to submit, herewith, my thirty-fourth Annual Report on matters which come within the scope of my department. The report is prepared on the usual lines and provides a reference to the many items with which the department is concerned. Clean air, clean food, good housing and the new legislation regarding Slaughterhouses have been the principal preoccupations.

There has been a change in the clerical staff which tends to upset continuity of the necessary office work and diverts technical staff from more important outside duties. A pupil inspector has now been in the department more than two years and will increasingly become more useful on minor technical work. Writing this report provides an opportunity to thank the members of my staff for their loyal and willing help in all matters affecting the department. Similarly, I am glad of the opportunity to acknowledge the help and consideration which I have received from the Chairman and members of the Public Health Committee. It is most encouraging to know that one can be sure of support from staff and the Health Committee in dealing with the many problems which arise.

I am,

Your obedient servant,

A. H. RUSHWORTH,

Senior Public Health Inspector.

SUMMARY OF INSPECTIONS MADE AND OTHER DETAILS

Bakehouses	4
Complaints Investigated	568
Dairies and Milkshops	2
Drains tested or inspected	24
Dwellinghouse under infectious Diseases	61
Dwelling Houses under Public Health Acts	179
Dwellinghouses under Housing Acts	36
Factories	6
Food	178
Interviews	97
Meat	416
Miscellaneous Housing Visits	7
Miscellaneous Sanitary Visits	30
Offensive Accumulations	9
Overcrowding	22
Premises Under Notice	45
Public Baths	64
Public Conveniences	1
Rats and Mice	18
Refuse Collection	205
Refuse Disposal	135
Rent Act	6
Restaurants and Canteens	5
Schools	3
Shops (Food Hygiene and Shops Act)	152
Slaughterhouse Act	6
Smoke Observations	1176
Stables and Piggeries	1
Street Vendors and Hawkers' Carts	8
Tents, Vans and Sheds	12
Verminous and Dirty Premises	45
Water Samples Obtained	3
Water Samples from Public Baths	22
Water Supply	17
Works in Progress	39

NUMBER AND TYPE OF NOTICES

Informal Notices Served	198
Informal Notices Complied With	196
Statutory Notices Served	—
Statutory Notices Complied With	—

SUMMARY OF NUISANCES ABATED AND DEFECTS REMEDIED

Defective	Roofs	8
,,	Eaves, gutters and fallpipes	8
,,	Walls	7
,,	Chimney Stacks	1
,,	Plasterwork	7
,,	Ceilings	1
,,	Floors	6
,,	Doors	5
,,	Skirting Boards	3
,,	Fireplaces	3
,,	Windows	10
,,	Water pipes and water taps	4
,,	Sinks and waste pipes	1
,,	External paintwork	2
,,	Paths	2
,,	Garden Walls	1
,,	Garden gates	1

MISCELLANEOUS ITEMS

Defective drains	1
,, Water closets	14
Dustbins provided or renewed	592
Blocked drains and sink pipes cleared	396
Verminous Premises disinfected	67
Books disinfected	12
Applications for Certificates of Disrepair	2
Certificates of Disrepair Issued	—
Premises repaired under Rent Act, 1957	4

HOUSING

Housing, from my point of view, is no problem, as the vast majority of houses are of modern construction and slums do not exist. There is, of course, a limited amount of so-called substandard property. that is, houses without a bathroom, hot water system and inside W.C., but otherwise structurally sound. Unfortunately, the Housing Act, 1949, which gives Local Authorities power to pay up to £400 towards bringing a house up to present day standards, is not compulsory and has not attracted the interest of property owners which suggests that the financial return is not sufficiently attractive. The only people interested are owner/occupiers and then only to a limited extent. This year there have been seven applications for grant, making a total of twenty-seven since the Act became operative. Under the House Purchase and Housing Act, 1959, householders can claim, as a right, what is known as a standard grant, the maximum of which is £155 where a house lacks amenities, such as a bath, W.C. and hot water. It remains to be seen whether this Act will be more successful than the earlier one. Under the Rent Act, 1957, two applications for Certificates of Disrepair were applied for. After service of notice repairs were done in each case.

During the year one individual unfit house has been demolished.

House building seems to be taking on another aspect. Since the war, the majority of houses have been built by the local authority, but this year has seen a greatly increased number built by private enterprise for owner/occupiers. The actual number being as follows, with the previous year's figures given in brackets.

By local authority ...	233	(157)
By private persons ...	121	(24)

OVERCROWDING

Lacking precise details from a survey there are only 8 known cases, which suggests that overcrowding is not a problem.

CARAVANS

This matter presents no problem either. Only two caravans are in use and they belong to mobile workers.

WATER

Water on tap! Something which we never appreciate until the tap runs dry. This did not happen on Tees-side, but like many other parts of the country water was very scarce as a result of the wonderful summer experienced. Works were gravely handicapped and many emergency measures had to be used. Water had to be saved by every possible means, but there was no rationing to households, except on a voluntary basis. The threat, however, was there, and standpipes would have been brought into use if the emergency had continued. Happily, this was not necessary and, in due course, people could use water as freely as they were accustomed to. This threat of water shortage should not occur again, as a new impounding reservoir has been brought into use and steps are being taken to build yet another and larger reservoir. A random sample gave the following result :—

	Parts per 100,000
Ammonia	0.003
Albuminoid Ammonia	0.017
Chlorine as Chlorides	1.00
Nitrogen as Nitrites	0.049
Total Solids	11.00
Oxygen absorption	0.350
Colour of sample	Yellowish-brown
Appearance of sample in 2ft. tube	Clear
Odour when heated to 50°C. ...	Nil
Injurious metals	Nil

Microscopical Examination

A minute deposit from half a gallon consisted of mineral matter.

Bacteriological Examination (Sample received 16.6.59)

Number of colonies on Nutrient Agar @ 37°C. after 48 hours	7 per ml.
Number of colonies on Nutrient Agar @ 20/22°C. after 48 hours	25 per ml.
Presumptive B. Coli Test @ 37°C. after 48 hours	Negative in 100 mls.
Clostridium Welchii test @ 44°C. in 40 ml. after 48 hours	Negative

Observations

The above results afford no evidence of pollution by sewage or other foul drainage, the water being of high bacterial purity. The colour of the water is due to peaty matter, the presence of which also satisfactorily accounts for the rather high figures for albuminoid ammonia and oxygen absorption. The supply, as represented by the samples examined, is therefore, satisfactory for human consumption.

The Engineer—Supply and Distribution, etc., has kindly supplied data of chemical and bacteriological results of water from Lartington, River Tees and Long Newton reservoir distribution zone. The bacteriological results are summarised below :—

River Tees Derived Supply

	Av'ge	Max.	Min.
Colony count per ml. on yeast extract agar after 1 day in 37°C.	5	16	nil
Colony count per ml. on yeast extract agar after 2 days at 37°C.	6	16	nil
Colony count per ml. on yeast extract agar after 3 days at 20°C.	4	14	1

Percentage of samples giving no Presumptive Coliform reaction per 100 ml.—99.6%

Percentage of samples showing no reaction for B. coli. (type 1) per 100 ml.—100%

Lartington Gravitation Supply

Colony count per ml. on yeast extract agar after 1 day at 37°C.	15	72	nil
Colony count per ml. on yeast extract agar after 2 days at 37°C.	19	80	nil
Colony count per ml. on yeast extract agar after 3 days at 20°C.	23	340	2

Percentage of samples giving no Presumptive Coliform reaction per 100 ml.—99%

Percentage of samples showing no reaction for B. coli (type 1) per 100 ml.—99.65%

As might be expected, the Lartington supply is more heavily coloured, but water supplied to Billingham is a blend of two-thirds Lartington and one-third derived from the River Tees. As the latter water is decolourised there is a noticeable improvement in the blend supplied. Improvements to filtration plant at Lartington will result in a further reduction of colour.

Treatment of Lartington supply is by slow sand filtration followed by treatment with Ammonia and Chlorine. The River Tees derived water is purified and decolourised by chemical coagulation followed by rapid gravity filtration, final sterilisation with chlorine completing the treatment. The water on leaving Long Newton service reservoir is passed through micro-strainers and sterilised with chlorine before passing into supply.

DRAINAGE AND SEWAGE

There has been no extension of sewers but enlarging the existing sewage disposal works is being considered. The scheme for improving sewers and sewerage disposal arrangements in Cowpen Bewley village has not been prepared largely due to lack of technical staff.

CLOSET ACCOMMODATION

The number and types of conveniences in the area are as follows :—

Privies	30
Water Closets	9,445

PUBLIC CLEANSING

Detailed reports on refuse collection and disposal and the salvage of waste materials are attached to this report.

BAKEHOUSES

There are now only four small bakehouses in use, as one business closed down during the year. These premises are satisfactory.

SHOPS

The number and type of shops is detailed below :—

Food Shops :—	
Fried Fish and Chips ...	15
Wet Fish	3
Grocers and General Dealers	61
Butchers	19
Greengrocers	12
Bread and Cakes	14
Sweets, etc.	25
Cafes and Snack Bars ...	5
	154
Other Shops	88
Total ...	242

Closing Hours

Enforcing closing provisions of the Shops Act, 1950, is a problem, and exemption of mobile shops and vans does not improve matters. By and large most shops close between 5 and 6 p.m., a few sweet shops being the exception. One such shop has had to be warned for exceeding the statutory hours. New legislation to put closing hours on a more sensible basis is urgently needed.

Food Hygiene Regulation, 1955

The requirements of these regulations are now reasonably well understood and it can safely be said that they have done much to improve food handling. Inspections have been well maintained and good relations exist between shopkeepers and the Department.

Registration of Premises

The number and types of food premises registered under Section 16 of the Food and Drugs Act, 1955 are given below :—

prepacked ice cream ...	53
Preserved foods	15
Fried fish	15

INSPECTION AND SUPERVISION OF FOOD

A. Milk

There is little to be said here and the position remains the same. Two Co-operative Societies and one private firm have almost the whole of this trade, and the supply is pasteurised except for a small amount of T.T. and Sterilised Milk. There are no processing plants in the district. Details of licence-granted premises are given below :—

" Tuberculin Tested "	5
" Tuberculin Tested (Pasteurised) " ...	2
" Tuberculin Tested (Sterilised) " ...	1
" Pasteurised "	11
" Sterilised "	21
Register of Retail Purveyors of Milk ...	21

B. Meat

The position here also remains unchanged. Slaughtering is carried out in three small slaughterhouses where top quality meat is produced. Condemned meat has been very limited and caused mostly by liver fluke and tuberculosis. Under the Slaughterhouse Act, 1958, the appointed day has been fixed at 2nd November, 1959, and a comprehensive report on Slaughterhouse requirements has to be made within twelve months of that date.

Carcases and Offal inspected and condemned in whole or in part

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed (if known)	245	25	—	1150	42
Number inspected	245	25	—	1150	42
All diseases except **Tuberculosis and Cysticerci**					
Whole carcases condemned	—	—	—	2	—
Carcases of which some part or organ was condemned	44	—	—	28	—
Percentage of the number inspected affected with diseases other than tuberculosis and cysticerci	16·9	—	—	2·73	—
Tuberculosis only:					
Whole carcases condemned	—	—	—	—	—
Carcases of which some part or organ was condemned	6	—	—	—	—
Percentage of the number inspected affected with tuberculosis	1·4	—	—	—	—
Cysticercosis					
Carcases of which some part or organ was condemned	—	—	—	—	—
Carcases submitted to treatment by refrigeration	—	—	—	—	—
Generalised and totally condemned	—	—	—	—	—

C. Other Foods

Inspections of foodstuffs resulted in the usual variety of goods being condemned. Much of this foodstuff is brought to our notice by traders who require a certificate to keep stocks in order. A list of goods condemned is given below :—

Miscellaneous Foodstuffs (tinned)	114	tins
Miscellaneous Foodstuffs (packets)	15	pkts.
Bacon and Ham	123¾	lbs.
Sausage	80	lbs.
Cooked Ham, Pressed Beef, etc.	67¾	lbs.
Tinned Meat	121	tins
Tinned Fish	29	tins
Tinned Milk	26	tins
Tinned Fruit	330	tins
Meat Pies	51	
Flour, Oatmeal, etc.	17	lbs.
Cake and Biscuits	49	lbs.
Margarine and Butter	15½	lbs.
Cheese	23¾	lbs.
Potatoes	952	lbs.
Jam, etc.	5	lbs.
Dried Fruit	24	lbs.

D. Adulteration

Eight samples of foodstuffs were submitted to the Public Analyst and were reported as genuine quality.

PUBLIC SWIMMING BATHS

The usual information relating to attendances at the Public Baths is given below.

	1958	1959
General Public ...	78,804	87,570
Use of Slipper Baths	1,998	1,889
Brine Baths	212	92
Private Sessions ...	1,797	1,809
Foam Baths	——	——

Due to the wonderful summer, there was a large increase in the number of persons using the swimming baths. The figures quoted above are self evident and provide a measure of the long months of sunshine enjoyed by everyone. Samples of water for bacteriological examinations were taken more frequently, some of which were not entirely satisfactory. This could have been due to heavy bathing loads and restricted use of water due to the general shortage, and therefore, filters could not be washed out as frequently as normal. Chlorine was increased considerably which produced better samples.

AIR POLLUTION

In an industrial area, obviously, this is a matter of some concern. Over the years every consideration has been given to the problem and so seriously have industry taken their public responsibilities that the gross nuisances experienced years ago have been eliminated. The truth of this may be confirmed by the complete lack of complaint from members of the general public, particularly in the Belasis Lane area. This is all the more commenable when it is realised that coal consumption has increased enormously since the war. Admittedly, when looking at the deposits in this area the figures are rather high, but it is significant that they have shown a steady reduction since 1948, whilst the sulphur oxides have shown a marked increase since 1953. Any real improvement in this position will only be brought about by scrapping the existing wet washing dedusting equipment and replacing with a dry method and the short stacks replaced by ones not less than 300ft. high. This would be an expensive item. Assuming this were done the question could be posed; would it still be necessary to depopulate this area as provided for in the Town map ? Frankly, I would hesitate to express an opinion for the simple reason that there are emissions from many sources other than the boiler plant. On the other hand, however, the boiler plant is the largest single cause of nuisance and without doubt the measures suggested above would have a marked effect on emissions not only regarding solid matter but concerning sulphur oxides also. All this is mere speculation at the moment, but the position outlined could arise.

The general position has not altered to any extent, that is that " fog " conditions and vapour emissions constitute the greater nuisance. Regarding the " Cat " smell, a chlorination plant has been erected to deal with this nuisance and although the summer was exceptionally fine there was no reoccurence of the trouble, which seems to indicate that the measures taken are effective. Similarly, with the " fish " smell, plant installed to prevent this nuisance, except for the occasional mishap, has proved effective.

On the domestic side progress has been made. The Council gave approval for a good sized smoke control area which was sent to the Ministry for Provisional approval. It is hoped to have this area come into operation in the early part of 1961.

The Tees-side Smoke Abatement Committee has continued to function in the usual way by meeting in various districts, thereby stimulating interest and helping constituent Authorities by an exchange of views and experience. Data is collected from 57 standard deposit gauges and 17 Lead peroxide instruments and Billingham operate a daily volumetric SO_2 and Smoke Recorder. Other Authorities seem rather reluctant to use this instrument, probably on account of the need for daily attention. In practice this is not a difficult matter. In the 1959 Annual Report submitted by the Technical Sub-Committee average monthly deposits were as follows :—

Industrial ...	41.12	
Semi-Industrial	22.48	tons per square mile
Residential ...	12.60	

A brief summary of action taken throughout the committee area was also included which indicates that the Clean Air Act is being implemented. The following is a list of the principal sources of emission with a short list of notes thereon :—

(1) **Pulverised fuel boilers.** Earlier in this report I have referred to the benefits which would result from replacing existing wet-washers with a dry system coupled with high chimneys. The existing method has worked efficiently but there is the dust, grit and sulphur which the washer does not remove, and water vapour emissions are peculiar to this type of apparatus. An additional disadvantage is the low height of the chimneys (120ft.).

(2) **Cement Works.** Emissions have been well controlled and a new type of cyclone will shortly come into use. This is a multicell type which will be additional to the present system of ordinary cyclone followed by electrostatic precipitator. The new system will have three separate pieces of equipment and the combined effect is expected to give very high dust removal efficiencies and will have the advantage of being more flexible by allowing separate units to be repaired without greatly increasing dust emissions.

(3) **Coke Ovens.** There is little to be said regarding this plant except that developments in making synthesis gas from oil could, eventually, replace this dirty process.

(4) **Water Gas Plant.** The same remarks apply here as to coke ovens.

(5) **C.C.F. Plant.** The new plant referred to in last year's report has worked extremely well and emissions quickly dissipate. The old C.C.F. plant retained to make a new fertilised has only worked part of the year and there is not sufficient experience on which to base any opinion.

(6) **Nitro-Chalk Plant.** Emissions from this plant seem to be well controlled.

(7) **Anhydrite Dust.** Plans for preventing dust emissions from the loading plant have not yet been finalised.

(8) **Amines Plant.** There has been little cause of complaint from this source.

(9) **Sulphuric Acid Plant.** Apart from the occasional fog nuisance probably caused by the addition of excess ammonia to neutralise acid the plant has caused little trouble.

(10) **Paint Pigment Process.** As outlined in previous reports steps taken to prevent emissions included provision of a new wash tower, 50% increase in electric precipitators and building a special brick chimney 200ft. high. These improvements have been completed.

(11) **Electricity Power Station.** This station has continued to work extremely well and at most times emissions are reduced to a light haze. The old stations have only been used intermittently and may in the near future be closed down.

Date obtained by 11 standard deposit gauges and 6 lead peroxide instruments and a Volumetric SO_2 Recorder and combined smoke filter is given. It is worth noting that except for a small increase in total solids at Field 23 and a slight increase in Sulphur at the Council Offices all gauges and instruments show a decrease. This could be due to the exceptionally fine summer.

STANDARD DEPOSIT GAUGES

Statement of the Totals and Monthly Averages, 1947-59.

Site of Gauges	No. of months	Year	Total Solids Collected (tons per sq. mile)		Rainfall (inches)	
			Total	Average	Total	Average
		INDUSTRIAL				
Crawford's Shop ..	4	1947	1039·89	259·77	4·665	1·166
	12	1948	2628·57	219·05	19·438	1·62
	12	1949	1896·49	158·04	14·096	1·17
	11	1950	1615·49	146·86	24·590	2·23
	10	1951	1843·10	184·31	24·79	2·47
	11	1952	1304·99	118·63	16·155	1·46
	9	1953	1300·72	144·52	9·637	1·07
	11	1954	1673·82	152·16	20·40	1·85
	10	1955	1316·24	131·62	13·47	1·34
	12	1956	1480·48	123·37	20·39	1·69
	10	1957	1310·26	131·02	16·24	1·62
	10	1958	1170·02	117·00	18·39	1·82
	12	1959	1254·78	104·56	14·08	1·17
Council Offices ..	3	1947	226·21	88·73	4·093	1·364
	12	1948	1170·73	97·56	19·688	1·64
	12	1949	1127·76	82·06	14·531	1·21
	11	1950	918·16	83·47	24·238	2·2
	11	1951	951·92	86·54	27·585	2·5
	10	1952	750·58	75·05	12·403	1·24
	12	1953	1013·84	84·49	15·353	1·28
	11	1954	855·12	77·73	24·33	2·21
	12	1955	961·87	80·15	16·74	1·39
	12	1956	970·92	80·91	21·31	1·77
	10	1957	895·34	89·53	14·96	1·49
	11	1958	909·33	82·66	20·73	1·88
	11	1959	717·79	65·25	10·69	0·97
		SEMI-INDUSTRIAL				
23 Seaton Terrace ..	4	1947	287·20	71·8	5·479	1·36
	12	1948	849·67	70·8	21·283	1·77
	12	1949	524·41	43·7	14·381	1·2
	12	1950	555·63	46·3	25·001	2·08
	11	1951	565·01	51·36	22·697	2·06
	12	1952	676·27	56·35	19·876	1·75
	12	1953	619·12	51·6	15·353	1·28
	12	1954	721·51	60·12	22·26	1·85
	12	1955	568·91	47·40	15·41	1·28
	12	1956	566·51	47·20	21·55	1·79
	12	1957	702·57	58·54	18·05	1·50
	12	1958	715·49	59·62	21·64	1·80
	12	1959	520·70	43·39	15·62	1·30

Site of Gauge	No. of Months	Year	Total Solids Collected (tons per sq. mile)		Rainfall (inches)	
			Total	Average	Total	Average
		SEMI-INDUSTRIAL				
35 Tibbersley Avenue	6	1955	108·57	18·09	8·23	1·37
	12	1956	327·46	27·28	22·92	1·91
	12	1957	271·48	22·62	19·98	1·66
	12	1958	364·56	30·38	26·34	2·19
	10	1959	187·73	18·77	12·07	1·21
		RESIDENTIAL				
32 Malvern Road ..	10	1948	117·29	11·73	18·04	1·80
	12	1949	108·67	9·05	16·14	1·34
	12	1950	128·71	10·72	29·42	2·45
	11	1951	146·38	13·3	32·34	2·69
	12	1952	132·95	11·08	23·6	2·0
	12	1953	118·67	9·89	19·77	1·65
	12	1954	161·28	13·44	27·33	2·27
	10	1955	127·92	12·7	15·69	1·56
	12	1956	162·35	13·53	22·59	1·88
	11	1957	113·13	10·28	13·47	1·22
	12	1958	176·38	14·69	29·50	2·46
	11	1959	128·92	11·72	13·38	1·22
Field 23, N E Billingham, Station	10	1950	109·79	10·97	18·45	1·84
	11	1951	136·77	12·43	22·13	1·84
	12	1952	175·49	14·62	17·95	1·5
	10	1953	131·33	13·13	11·07	1·1
	8	1954	109·14	13·64	9·48	1·18
	12	1955	182·21	15·18	13·80	1·15
	10	1956	181·47	18·14	18·56	1·85
	12	1957	186·43	15·53	17·54	1·46
	10	1958	154·01	15·40	16·45	1·64
	10	1959	170·75	17·07	10·10	1·01
R.C. Church Grosvenor Road	12	1954	128·39	10·69	24·16	2·09
	12	1955	119·76	9·98	18·24	1·52
	12	1956	145·56	12·13	23·58	1·96
	11	1957	124·16	11·28	19·47	1·77
	10	1958	121·15	12·11	21·44	2·14
	12	1959	137·80	11·48	17·37	1·45
The Hostel, Melrose Avenue	5	1954	56·43	11·28	13·97	2·79
	12	1955	124·02	11·27	16·02	1·45
	12	1956	181·62	15·13	21·43	1·79
	12	1957	155·43	12·95	20·16	1·68
	12	1958	172·64	14·38	24·66	2·05
	12	1959	133·36	11·11	15·96	1·33
Cornwall Crescent ..	5	1954	90·60	18·12	14·43	2·88
	12	1955	201·87	16·82	18·07	1·50
	12	1956	303·7	25·3	23·72	1·97
	12	1957	231·75	19·31	20·52	1·71
	12	1958	236·50	19·71	26·21	2·18
	12	1959	212·29	17·69	17·40	1·45
109 Braemar Road	5	1957	71·48	14·29	8·25	1·65
	12	1958	134·47	12·22	21·27	1·93
	12	1959	114·51	9·54	16·42	1·35
231 Braemar Road	5	1957	98·83	19·76	8·51	1·70
	9	1958	163·74	18·19	18·05	2·00
	10	1959	170·75	17·07	10·10	1·01

WIND RECORD—S.W. WIND

Year	No. of months	Total percentage	Monthly percentage
1949	12	420.0	35.0
1950	12	390.0	32.5
1951	12	446.4	37.2
1952	12	440.3	36.7
1953	12	478.4	39.9
1954	12	459.7	38.31
1955	12	273.2	22.76
1956	12	270.2	22.5
1957	12	244.4	20.36
1958	12	275.9	22.99
1959	12	314.2	26.18

LEAD PEROXIDE INSTRUMENTS

Statement of the Totals and Monthly Averages

Site of Instrument	No. of months	Year	Expressed as mgms. of SO.^{3} per 100 sq. cms. per day	
			Total	Average
INDUSTRIAL				
Council Offices	10	1949	70·656	7·065
	12	1950	104·244	8·687
	12	1951	88·008	7·334
	12	1952	62·852	5·237
	12	1953	54·691	4·557
	12	1954	123·27	10·27
	12	1955	131·20	10·93
	12	1956	142·17	11·847
	12	1957	153·08	12·75
	12	1958	137·85	11·487
	12	1959	141·26	11·77
SEMI-INDUSTRIAL				
35 Tibbersley Avenue	6	1955	7·79	1·29
	12	1956	20·275	1·689
	12	1957	19·657	1·638
	12	1958	19·22	1·60
	12	1959	17·93	1·49
RESIDENTIAL				
Field 23, N.E. Billingham Station	12	1950	11·136	0·928
	12	1951	11·706	0·975
	12	1952	9·399	0·783
	12	1953	9·507	0·792
	10	1954	12·179	1·217
	12	1955	14·307	1·192
	12	1956	15·61	1·30
	12	1957	14·84	1·23
	12	1958	17·90	1·49
	12	1959	16·59	1·38
R.C. CHURCH, Grosvenor Road	12	1954	10·261	0·855
	12	1955	11·596	0·966
	12	1956	10·857	0·905
	12	1957	11·93	0·99
	12	1958	12·37	1·03
	12	1959	12·02	1·00
The Hostel, Melrose Avenue	4	1954	6·78	1·69
	12	1955	18·965	1·580
	12	1956	21·77	1·814
	12	1957	20·56	1·71
	12	1958	19·94	1·66
	12	1959	18·14	1·51
109 Braemar Road	5	1957	8·43	1·686
	12	1958	17·79	1·48
	12	1959	16·28	1·36

LEAD PEROXIDE INSTRUMENTS— MONTHLY RECORDINGS, 1959

COUNCIL OFFICES—Ind.

Months	Mgms. of SO^3
January	13·01
February	17·46
March	10·74
April	11·65
May	4·60
June	8·75
July	11·10
August	8·81
September	10·12
October	10·05
November	21·03
December	13·94
12	141·26

Av. 11·77

35 TIBBERSLEY AVENUE— Semi-Ind.

Months	Mgms. of SO^3
January	2·01
February	2·57
March	1·74
April	1·14
May	1·01
June	0·88
July	0·53
August	0·73
September	0·97
October	1·31
November	2·41
December	2·63
12	17·93

Av. 1·49

FIELD 23 — Resid.

Months	Mgms. of SO^3
January	2·23
February	1·65
March	2·24
April	1·16
May	0·59
June	0·54
July	0·54
August	0·62
September	0·90
October	1·49
November	2·45
December	2·18
12	16·59

Av. 1·38

R.C. CHURCH, Grosvenor Road Resid.

Months	Mgms. of SO^3
January	1·59
February	1·36
March	1·38
April	0·94
May	0·65
June	0·42
July	0·33
August	0·32
September	0·53
October	0·84
November	1·67
December	1·99
12	12·02

Av. 1·00

THE HOSTEL, MELROSE AVE. Resid.

Months	Mgms. of SO^3
January	2·81
February	2·19
March	2·07
April	1·15
May	1·15
June	0·75
July	0·60
August	0·82
September	0·96
October	1·46
November	2·42
December	1·76
12	18·14

Av. 1·51

109 BRAEMAR ROAD — Resid.

Months	Mgms. of SO^3
January	2·52
February	2·40
March	1·75
April	1·25
May	0·56
June	0·51
July	0·49
August	0·55
September	0·65
October	1·14
November	2·07
December	2·40
12	16·28

Av. 1·36

VOLUMETRIC SO_2 RECORDER AND COMBINED SMOKE FILTER

Month	SO^2 in Vols./100 million vols. in air Average	Smoke Concentrations in air in mgms. per 100 cu. metres. average
January	26·99	38·1
February	42·13	29·2
March	25·41	21·8
April	25·09	14·1
May	7·18	7·0
June	11·80	7·17
July	17·16	7·18
August	8·28	5·21
September ..	9·97	14·7
October	5·30	16·43
November ..	28·08	26·28
December ..	44·06	21·31

INFECTIOUS DISEASES

Enquiries have been made regarding cases of scarlet fever, poliomyelitis and food poisoning. In one case of food poisoning a sample of suspected food was sent to the Public Health Laboratory but the result was inconclusive. The value of good personal hygiene is stressed in all cases. Library books removed from infected houses have been disinfected before recirculation. Disinfectant is available from suitable parts of the area.

VERMINOUS PREMISES

Complaints regarding verminous premises increased somewhat, a less desirable result of the warmer weather. Infestations were mostly due to cockroaches and clovermites, the latter being confined to post-war houses. They are particularly troublesome during sunny weather, but are readily controlled by Malathion insecticide.

PREVENTION OF DAMAGE BY PESTS ACT, 1949

Previously, information concerning this matter covered the financial year ending 31st March. The Ministry of Agriculture, Fisheries and Food have indicated that, in future, the report should be for a calendar year, therefore, the data given below covers the period 1st April, 1959, to 31st December. This useful work has continued on established lines, sharing the services of a rodent operator with a neighbouring authority. This arrangement is proving most satisfactory and helps to keep costs to a reasonable level. The probable cost for the financial year ended 31st March, 1960, being £370. As the period under review is for nine months only comparison with last year is not practical but there has been a reduction in the number of infestations reported. On the other hand poison takes in sewer treatment have increased, but in this case the period considered is the same, as sewers are treated at six-monthly intervals. Takes are 28 compared with 11 last year.

	1958	**1959**
Premises visited	273	206
Inspections made	285	224
Treatment visits	521	254
Premises treated	108	86
Major infestations found (rats) ...	—	—
Minor infestations found (rats) ...	111	75
Serious infestations found (mice)	—	—
Minor infestations (mice)	16	15
Sewer treatments	2	2
Number baited	302	360
Total takes (if recording done on 4th day)		28

ANNUAL REPORT ON
REFUSE COLLECTION AND DISPOSAL
FOR THE YEAR 1959/60

Mr. Chairman, Ladies and Gentlemen,,

I beg to submit, herewith, my Annual Report on the Collection and Disposal of household and shop refuse. A separate report on the Salvage of waste materials is attached hereto. Compared with last year, labour has not been as readily obtained due to improvement in the Local employment position, and there has been a steady wastage of men. The work is hard and dirty and unlike other departments there is little opportunity for overtime which helps to increase income. However, a good service has been provided, apart from a period of bad weather during the early part of the year.

I wish now to express appreciation to everyone concerned and, in particular, to the foreman on whom I rely greatly for dealing with a variety of matters which arise from day to day and ensuring that the service functions smoothly, for doing a job which although mundane, is an important public health service.

I am,

Your obedient servant,

A. H. RUSHWORTH,

Senior Public Health Inspector.

MANUAL LABOUR

The number of men employed and the nature of their employment is as follows :—

Foreman	1
Mechanic	1
Refuse collection and Salvage of Waste Materials ...	20
Refuse Disposal	1
Drivers	5
	28

The number of man hours worked compared with last year is as follows :—

1958/59		**1959/60**
41,200	...	41,047

It is interesting to note that fractionally less hours have been worked than last year. This seems to confirm what I said previously about availability of labour.

There has been a steady turnover of labour.

Out of a complement of 28 men 22 are considered regulars, and the remaining 6 posts have been filled 25 times, which means that frequently we are one or two men short with a consequent difficulty in giving a weekly service we consider so essential. Sickness has increased appreciably, but absence is reduced.

Sick pay		Absence
Days	Amount	Days
	£ s. d.	
491	588 13 3	32
(365)	(396 5 5)	(78)

Wages amount to 79.5% of the gross cost of the service.

VEHICLES

An indication was given in last year's report that another vehicle would shortly be required. A new fore and aft tipping machine was delivered in February which gives the extra vehicle capacity essential in keeping pace with development and replacing an out-of-date machine. Another machine will soon be required as the district is expanding and refuse is increasing in quantity. Considerable trouble has been experienced with a machine fitted with hydraulic packing arrangements. The manufacturers brought out a modification which necessitated the machine going to the works to have the improvement fitted. This has given more efficient loading with a consequent increased carrying capacity. The following tables give details of reliability, running cost, and work done, relative to each machine.

RELIABILITY

Vehicle	Possible No. of hours	No. of hours lost for repairs	Percentage of hours worked
No. 1 RPT. 854	2282 (2242)	361 (214)	84.2 (90.5)
No. 2 218 GPT (6 weeks)	251	Nil	100
No. 4 GPT. 114	1569 (2066)	189 (243)	88.0 (88.2)
No. 5 HPT 647	1721 (1060)	266 (268)	84.6 (74.7)
No. 6 LUP. 548	2202 (2245)	149 (58)	93.2 (97.4)
No. 7 NUP. 30	2161 (2264)	61 (101)	97.2 (95.5)
Angle-dozer	872 (890)	111 (134)	87.3 (84.9)
Van 675 BUP	1314 (254)	2 (17)	99.8 (93.8)

RUNNING COSTS

Vehicle	Capacity cu. yds.	Total Cost	Driver's Wages	Insurance and Licences	Fuel and Oil	Maintenance and Repairs	Garage Rent
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
No. 1 (Diesel) (1955)	19·5/25	1532 3 2 (932 10 11)	499 12 6 (497 11 4)	93 4 6 (90 12 10)	158 7 11 (148 1 3)	728 18 3 (190 16 8)	52 0 0 (5 8 0)
No. 2 (1960) (2 months)	16/18	204 4 8	60 9 5	88 12 4	40 4 4	7 18 7	7 0 0
No. 4 (1946)	11·3	742 2 6 (857 7 1)	356 19 0 (467 9 6)	47 17 3 (46 9 10)	159 17 6 (165 16 5)	125 8 9 (172 3 4)	52 0 0 (5 8 0)
No. 5 (1947)	11·3	908 18 0 (529 11 8)	387 6 1 (209 4 7)	47 17 3 (46 13 10)	141 13 8 (92 9 5)	277 11 0 (175 15 10)	45 0 0 (5 8 0)
No. 6 (1950)	13·5/18	1130 2 7 (1036 7 5)	534 16 7 (561 3 9)	74 16 2 (72 15 2)	275 11 0 (256 9 9)	192 18 10 (140 10 9)	52 0 0 (5 8 0)
No. 7 (1953)	16/18	1119 1 11 (1052 16 0)	567 2 1 (556 9 10)	86 3 10 (83 3 2)	270 6 2 (260 9 9)	143 9 10 (147 5 3)	52 0 0 (5 8 0)
Angle-dozer (1956)		442 5 9 (419 1 3)	199 3 5 (189 4 7)	6 7 1 (6 2 4)	28 16 8 (24 4 2)	207 18 7 (194 2 2)	(5 8 0)
Morris Van (1959) (3 months)	5 cwts.	104 13 4 (57 6 7)	— —	21 18 4 (21 8 0)	57 16 5 (15 0 0)	11 18 7 (20 18 7)	13 8 8 (—)

Number and Weight of Loads Removed and Miles per Load and Fuel Consumption

Vehicle	No. of Loads	Weight per Load		Total Weight	Mileage	Fuel	Miles per Gallon	Miles per Load
		T.	C.	TONS		GALLS		
Salvage				192				
				(207)				
No. 1	481	4	0	1924	4822	731	6·6	10·0
	(493)	(4	0)	(1972)	(4814)	(700)	(6·9)	(9·8)
No. 2	78	3	0	234	650	166	3·9	8·3
No. 4	571	1	0	571	4328	749	5·4	7·6
	(772)	(1	0)	(772)	(5946)	(813)	(7·3)	(7·7)
No. 5	633	1	0	633	4768	710	6·7	7·5
	(305)	(1	0)	(305)	(2919)	(411)	(7·1)	(9·6)
No. 6	598	3	0	1794	5284	1312	4·0	8·8
	(614)	(3	0)	(1842)	(5416)	(1259)	(4·3)	(8·8)
No. 7	747	3	0	2241	5446	1345	4·1	7·3
	(753)	(3	0)	(2259)	(5397)	(1268)	(4·3)	(7·2)
	3108			7589	25298	5013		
	(2937)			(7357)	(24492)	(4451)		

REFUSE COLLECTION AND SALVAGE

It would be idle to pretend that a weekly collection has been maintained all the year round. The Summer period presents no difficulty as weather conditions are more favourable, daylight is no handicap, and there is not the same amount of sickness. Winter, when these conditions are reversed with increased quantity of heavy refuse cause a severe strain on the men, and there have been occasions when collections have not been completed within the week. However, complaints which may be used as an index in this matter have been remarkably few at slightly more than one per week, and many of these relate more to " missed " bins due to difficulty of access, misuse, etc., than to work being in arrears. Shop refuse continues to be collected weekly at a charge of 30/- per bin per year.

REFUSE DISPOSAL

The disused sand quarry at Wolviston has been used for the disposal of all refuse. This site is rapidly filling up and if used to contour levels will be approaching completion in rather more than a year's time.

Tipping facilities are available in another sand and gravel quarry some two miles north-east of the present tip, and with developments extending northwards the length of haul will not be unreasonable.

NUMBER AND TYPES OF RECEPTACLES

Dust bins	9,362
Privies	30
Ashpits	4

COST

The question of cost is an important one and also gives some measure of the efficiency of the service. Attached is a copy of the Public Cleansing Costing Return supplied to the Ministry of Housing and Local Government.

Disposal costs are increased due to the Salvage scheme which is charged to this service. If baling could be increased by mechanisation not only would the men benefit but the cost of disposal would show a decrease. However, net cost at 3s. 10d. per ton is very reasonable.

Labour costs are actually a few pounds less than the previous year but it will not be possible to maintain this position as the town is expanding and there seems to be a tendency for refuse to be increasing generally. This is indicated by an increased number of loads removed. Transport costs have increased and this has had the effect of increasing unit costs per 1,000 population and per 1,000 premises. Brought down to a common factor the cost of emptying a bin is 9d. per week.

APPENDIX I—PUBLIC CLEANSING COSTING RETURN

for the year ended 31st March, 1960

Item	Particulars 1	Collection 2	Disposal 3	Totals 4	Percentage 5
	REVENUE ACCOUNT	£	£	£	£
1	GROSS EXPENDITURE				
	(i) Labour	10,528	2,266	12,794	63
	(ii) Transport	6,817	657	7,474	36
	(iii) Plant equipment, land and buildings	8	218	226	1
	(iv) Other items	—	—	—	—
	(v) Total Gross expenditure	17,353	3,141	20,494	100
2	GROSS INCOME	214	1,671	1,885	—
3	NET COST	17,139	1,470	18,609	—
4	Capital expenditure met from revenue (included in above)	—	—	—	—
	UNIT COSTS	s. d.	s. d.	s. d.	s. d.
5	Gross cost per ton, labour only	27 9	6 0	33 9	—
6	Gross cost per ton, transport only	18 0	1 9	19 9	—
7	Net cost (all expenditure) per ton	45 2	3 10	49 0	—
		£	£	£	£
8	Net cost per 1,000 population	591	51	642	—
	Net cost per 1,000 premises	1,818	156	1,974	—

OPERATIONAL STATISTICS

Item	Particulars	
10	Area (statute acres) — land and inland water	10,663 acres
11	Population at 30th June, 1959	28,770 persons
12	Total refuse collected (tons) estimated	7,589 tons
13	Weight (cwts.) per 1,000 population per day	14·8 cwts.
14	Number of premises from which refuse is collected	9,424 premises
15	Premises from which collections are made at least once weekly	100%
16	Average haul, single journey to final disposal point (including nil miles by secondary transport)	2½ miles
17	Kerbside collection expressed as estimated percentage of total collection	Nil%
18	Total refuse disposed of (of which nil tons were disposed of for other local authorities)	7,589 tons
19	Method of disposal:	
	Controlled tipping	100%

Item	Particulars	Income (included in Item 2)	Tonnage Collected
20	Salvage. Analysis of income and tonnage:		
		£	tons
	Salvage:		
	(a) Raw Kitchen Waste	—	—
	(b) Scrap Metal	10	3¾
	(c) Waste Paper	1,522	185
	(d) Other Salvage	50	3½
		1,582	192½
21	**Trade Refuse**	268	134

APPENDIX II—SALVAGE OF WASTE MATERIALS

for the year ended 31st March, 1960

EXPENDITURE

	1958/59			1959/60		
	£	s.	d.	£	s.	d.
Wages, etc.—						
Wages, holiday pay, sick pay, superannuation and insurance ..	1,289	10	6	798	14	4
Bonus	787	2	4	813	18	1
	2,076	12	10	1,612	12	5
Working Expenses:						
Baling Wire, etc.	32	4	1	74	11	0
Hut, etc. ..		5	7	2	2	6
Clothing ..	2	15	2	4	13	3
	35	4	10	81	6	9
Total Expended:	2,111	17	8	1,693	19	2
Balance:						
Loss	394	0	8	111	16	6
	1,717	17	0	1,582	2	8

INCOME

	1958/59						1959/60					
	T.	C.	Q.	£	s.	d.	T	C.	Q.	£	s.	d.
Waste Papers:												
Mixed	137	4	3	1,029	5	8	109	14	3	823	0	7
Fibreboard ..	51	17	1	492	13	10	59	11	1	565	16	11
Newspapers ..	13	5	0	129	3	0	15	10	1	132	16	3
	202	7	0	1,651	2	6	184	16	1	1,521	13	9
Textiles, etc. ..	4	5	2	61	17	0	3	11	3	50	4	6
Non-ferrous Metals ..		2	0½	4	17	6		1	3½	4	13	11
Scrap Metal ..	—			—			3	15	2	5	10	6
	206	14	2½	1,717	17	0	192	5	1½	1,582	2	8

The above is a statement of expenditure and income on the collection of waste materials with details of the previous year for comparison. The bulk of Salvage is waste paper and cardboard with small amounts of textiles and metals. Worn out dust bins, etc., are difficult to dispose of. All restrictions on paper collections have been removed and it is disappointing to see less tonnage collected. Much more could be collected but baling is the difficulty. Hand baling is slow and laborious, but electricity is not available except at prohibitive cost and with the tip nearing completion there is no point in incurring heavy expenditure. Expenditure on wages is reduced by the simple expedient of not making allocation of refuse collection costs to this service. It can be argued with some justification that if salvage were discontinued, the material would have to be removed as refuse.

A. H. RUSHWORTH,
Senior Public Health Inspector.